PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of the existing traffic control signal at the intersection of MD 173 and Solley Road in Anne Arundel County. New mast arm signal poles and cabinet will be installed and video detection will be implemented. MD 173 is assumed to run in a north-south direction.

II. INTERSECTION OPERATION

1. The intersection operates in a fully-actuated mode using six phases. Both MD 173 approaches will operate with exclusive/permissive left turn phasing and the minor street approaches operate under split phasing.

2. A new NEMA full-traffic-actuated, eight (8) phase controller housed in a Type S base mounted cabinet shall be installed at this intersection under this project.

NOTES

1. All pavement markings shall be installed in accordance with Administration standards.
2. The contractor shall be responsible for terminating all signal cable to the appropriate terminals and properly labeling each cable.
3. All traffic signal foundations shall be installed at the final sidewalk or curb grade for closed sections, highest roadway profile grade for open sections, to meet clearances as specified in the appropriate 800 series Standard Plates. The contractor shall verify ultimate grades prior to the installation of all signal equipment.
4. Disconnecting and splicing of interconnect cable shall be performed by SHA Forces. The contractor shall run the interconnect cable into the base of each cabinet and properly tag the cable. Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.
5. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
6. The contractor shall maintain the continuous operation of all interconnect, vehicular, pedestrian detectors, and lighting devices. If any device is damaged by the contractor, it shall be repaired within 72 hours by the contractor at no cost to the Administration after notification by the Engineer.
7. The Contractor shall verify cabinet location prior to installation.
8. Video camera location and aligning shall be coordinated with the SHA Engineer.
9. All proposed luminaires shall be provided with a photocell.

CONTACTS

DISTRICT

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-841-1019
MR. MIKE HUBER
UTILITY ENGINEER
410-841-1039
MR. JAMES FOLDEN
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
410-841-1031
MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
410-841-1013

OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630
MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630
MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
410-787-7650
MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
410-787-7670
MR. MIKE STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY THE ADMINISTRATION

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
9104	CONTROLLER CABINET, SIZE "S" WITH CONTROLLER & VIDEO DETECTION INTERFACE FOR 1-8 CAMERAS	EA	1
9110	UPS EQUIPMENT FOR "S" CABINET	EA	1
9570	SHEET ALUMINUM GROUND MOUNTED SIGNS CONSISTING OF:	SF	14.5
	OM1-3 (18" X 18") GROUND MOUNT	EA	2
	R4-7 (24" X 30") GROUND MOUNT	EA	2
9571	SHEET ALUMINUM POLE MOUNTED SIGNS CONSISTING OF:	SF	134.3
	M1-5(6) (48" X 72") POLE MOUNT	EA	1
	M1-5(6) (30" X 48") POLE MOUNT	EA	1
	R3-5(L) (30" X 36") MAST ARM MOUNT	EA	1
	R3-6 (30" X 36") MAST ARM MOUNT	EA	1
	D-3(1) (VAR. X 16") MAST ARM MOUNT	EA	8

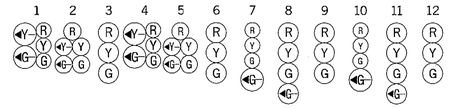
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
1001	MAINTENANCE OF TRAFFIC	EA	SEE SHEET 2 OF 15
2002	TEST PIT EXCAVATION	CY	3
5002	5" HEAT APPLIED WHITE OR YELLOW PERMANENT PAVEMENT MARKINGS	LF	125
5003	REMOVAL OF EXISTING PERMANENT PAVEMENT MARKING LINES	LF	180
5005	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	150
6002	5 INCH CONCRETE SIDEWALK	SF	850
8001	12 INCH LED SIGNAL HEAD SECTION	EA	36
8004	8 INCH LED SIGNAL HEAD SECTION	EA	12
8007	ANY SIZE LIGHTING ARM ON SIGNAL STRUCTURE WITH 250 WATT HPS LAMP AND LUMINAIRE	EA	3
8012	EMBEDDED METERED SERVICE PEDESTAL	EA	1
8017	MAST ARM POLE & 38' MAST ARM ANY 'T' DIMENSION	EA	1
8019	MAST ARM POLE & 60' MAST ARM ANY 'T' DIMENSION	EA	1
8022	NON-INVASIVE DETECTOR (ANY LENGTH) LEAD-IN CABLE UP TO 1000'	EA	6
8023	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)	EA	SEE SHEET 2 OF 15
8025	TWIN MAST ARM POLE & 50'/60' MAST ARMS ANY 'T' DIMENSION	EA	1
8028	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH	EA	4
8033	DISCONNECT, PULL BACK & REROUTE CABLES	LF	75
8034	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TYPE T/C	LF	500
8036	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	LF	260
8037	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	460
8038	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	720
8039	WOOD SIGN SUPPORTS UP TO 4" X 6"	LF	48
8040	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)	SF	148.8
8042	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	330
8045	ELECTRICAL CABLE - 1 CONDUCTOR NO. 8 AWG-THHN/THWN	LF	40
8046	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	12
8055	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	100
8056	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1620
8061	INSTALL CONTROLLER AND CABINET - BASE MOUNT (ANY SIZE)	EA	1

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

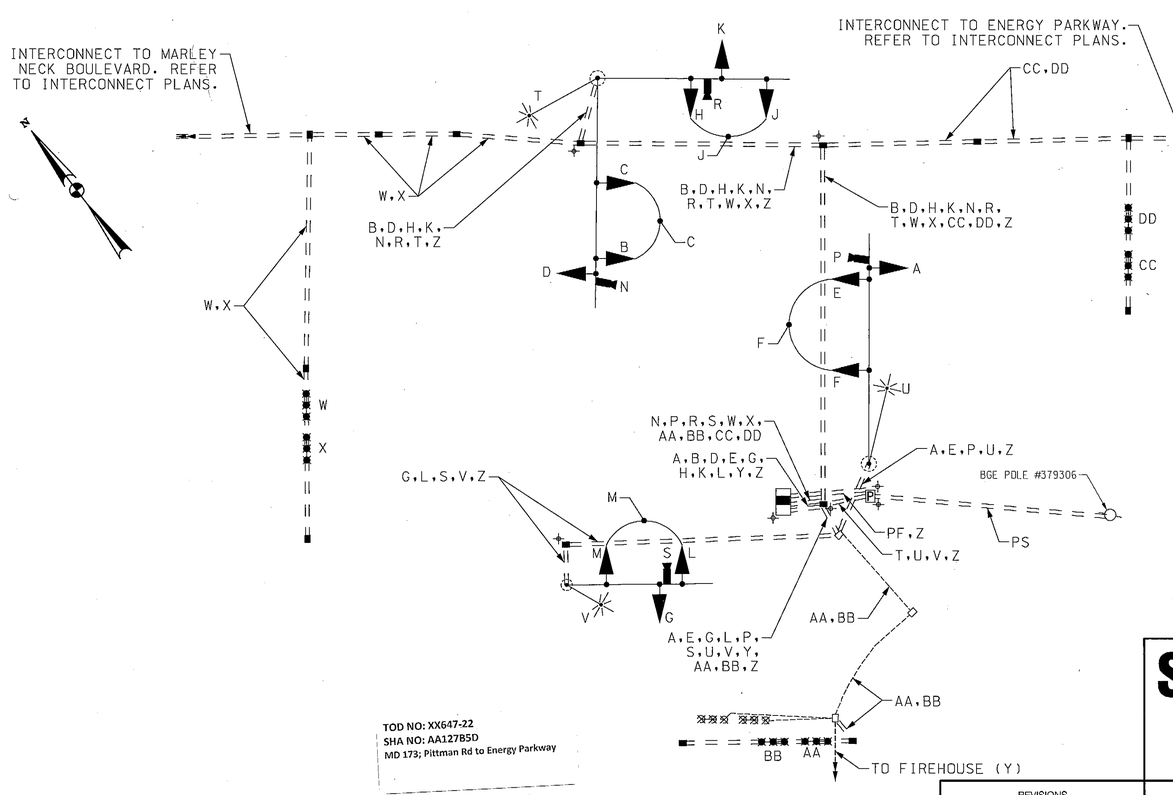
BY:AGRIFFIN -

PHASE CHART



PHASE 1 AND 5	←G/R	←G/R	R	←G/R	←G/R	R	R	R	R	R	R	R	
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6													
PHASE 1 AND 6	←G/G	←G/G	G	R	R	R	R	R	R	R	R	R	
1 CHANGE	←Y/G	←Y/G	G	R	R	R	R	R	R	R	R	R	
PHASE 2 AND 5	R	R	R	←G/G	←G/G	G	R	R	R	R	R	R	
5 CHANGE	R	R	R	←Y/G	←Y/G	G	R	R	R	R	R	R	
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	R	
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	
PHASE 3	R	R	R	R	R	R	R	R	R	←G/G	←G/G	G	
3 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	
PHASE 4	R	R	R	R	R	R	←G/G	←G/G	G	R	R	R	
4 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	

WIRING DIAGRAM



TOD NO: XX647-22
SHA NO: AA127B5D
MD 173; Pittman Rd to Energy Parkway

KEY

A,B,D,E,G,H,K,L	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
C,F,J,M	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
T,U,V	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TRAY CABLE
N,P,R,S	VIDEO DETECTION CABLE
W,X,AA,BB,CC,DD	NON-INVASIVE PROBE LEAD-IN CABLE
Y	RELOCATED PORTION OF FIREHOUSE PRE-EMPTION CABLE
Z	1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
PF	POWER SERVICE UNDERGROUND 3 WIRE 1 CONDUCTOR (NO. 8 AWG)
PS	EMPTY CONDUIT WITH PULLSTRING, BGE TO MAKE FINAL CONNECTION
⏚	GROUND ROD

SABRA, WANG & ASSOCIATES, INC.
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SUITE 100
COLUMBIA, MD 21046
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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 173 (FORT SMALLWOOD ROAD) AT SOLLEY ROAD

PASADENA, MARYLAND

REVISIONS

GENERAL INFORMATION SHEET

SCALE N.T.S. DATE JUNE 2012 CONTRACT NO. XX6475185

DESIGNED BY A. GRIFFIN
DRAWN BY A. GRIFFIN
CHECKED BY S. DU
FAP NO.

COUNTY ANNE ARUNDEL
LOGMILE 02017307.60
TIMS NO. H408
TOD NO.

TS NO. 1669F | DRAWING SG-06 OF 15 | SHEET NO. 6 OF 15

PLOTTED: Monday, June 11, 2012 AT 08:01 PM
FILE: R:\2008\73 SHA BCS 2008-05A_TEDD DESIGN_STV_JV_ $5M\Task 179 MD 173 Interconnect\dwg\pSG-N003_MD173.dgn